

Appleby Archaeology Group

Stone circles: Their Geometry and Alignments was the title of an intriguing talk given by David Rix to the Appleby Archaeology Group at their November meeting.

Mr Rix introduced his subject by showing a number of slides of stone circles as he described some of their features, commenting that most discoveries about circles have been made by non archaeologists.

3000 circles have been noted in Britain of which a 1000 survive with 65 in Cumbria. In the Crosby Ravensworth area there are 6 confirmed circles and possibly 2 more. The circles are usually in ruins. Over the centuries damage has been caused by farming and the development of roads, railways and building. One slide of a circle near Crosby Ravensworth showed the site was bisected by a dry stone wall.

Circles vary in size, the largest, Avebury in Wiltshire, has a diameter of 325m in contrast to a circle off the Crosby Ravensworth Shap road which has a diameter of 3-4m. Stonehenge has a diameter of 30m and nearer home Long Meg and her Daughters has a diameter of over 90m. Some of the stones at Long Meg are calculated to weigh 30 tons and it has been suggested that it would have required 30 men to raise one. From this a calculation has been made of the population of the area at the time the circle was built.

In Invernesshire and Aberdeenshire circles are found that have recumbent stones in their south west corner.

It is difficult to date the circles as dating material is sparse. Large circles are often empty whereas the smaller may have cremated remains. The large circles are thought to be the older. Castlerigg dated to 3200Bc may be the oldest circle in Cumbria if not Britain. Smaller rings are later, from Hill North and South in Crosby Ravensworth Parish are dated to 1500-2000BC. Oddendale Circle is formed by two concentric rings of which the outer is probably the earlier. It may be that concentric rings fall between the dates of the large rings and the small.

Slides included some of Stonehenge, surveyed in the 1720s by William Stuckeley, and Callanish an atmospheric site in the Western Isles. Woodhenge in Wiltshire, found by aerial survey in 1925, had a sequence of 6 concentric wood oval rings and is dated to 2300BC (positions of the timbers are now marked by concrete posts), and Seahenge in Norfolk, where the central stump is dated to 2050 BC and the surrounding stumps to 2049BC, were shown as examples of wooden circles.

Mr Rix then went on to describe, in some detail, the work of the late Alexander Thom, professor of engineering science at Oxford in 1950s. Thom visited 400 stone circles accurately surveying 300. From the statistical analysis of the data he found that many circles are pure circles but a significant number are not and from a geometric view point they are complex. He identified five shapes, the ellipse, two types of flattened circles, and two types of egg shapes. He put forward the idea that British stone circles were built to a common unit of measurement which he called the megalithic yard at 0.83m. These ideas were not universally accepted and simple methods of measuring such as pacing are favoured by some. His work was not published in journals of

archaeology but in the journals of the statistical society.

Another result of Thom's work was to identify that most stone circles and standing stones seem to incorporate astronomical alignments in their design. The frequency of alignments found to the winter and summer solstices, the equinoxes and the Celtic festivals led Thom to suggest that there was a Neolithic calendar of 8 or 16 months. These ideas of Thom's set people thinking and archaeo-astronomy is now an accepted discipline.

It is probable that the smaller circles have no astrological significance. Examples of circles where astronomical function are strong are Callanish on the Island of Lewes, Castlerigg in Cumbria and Stonehenge. Those present were certainly intrigued to learn that on Mayday Long Meg can be aligned to Castlerigg, Fiends Fell and Little Meg.

A number of questions were taken before Mr Rix was thanked for a stimulating and interesting talk.

The next meeting of the group will be on Tuesday December 4th at 7pm in the Intake Centre Appleby Grammar School when Niall Hammond, the County Archaeologist for Durham will talk on The Archaeology of Stainmore Pass

Phyllis H Rouston November 15, 2001